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(54) Title: RECHARGEABLE ELECTROCHEMICAL CELL

(57) Abstract: An electrochemical cell is provided, including an anode, a cathode, and an electrolyte therebetween. The anode contains magnesium in a reduced state, and the cathode includes a rutile structure. The rutile structure is capable of intercalating magnesium ions received from the anode to produce a low voltage. The electrochemical cell is rechargeable. Additionally, the electrochemical cell is cheaper, more environmentally friendly and has a higher volume density than related art electrochemical cells. A method of manufacture is also provided.

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INTERNATIONAL SEARCH REPORT

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PCT / J 03 / 13789

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H01M10/40 H01M4/02 C01G23/047

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01M C01G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	NOVAK P. ET AL.: "Magnesium insertion electrodes for rechargeable nonaqueous batteries" ELECTROCHIMICA ACTA, vol. 45, 1999, pages 352-367, XP002153767 ISSN: 0013-4686 the whole document	1-72
A	NOVAK P. ET AL.: "Electrochemical insertion of Magnesium in metal oxides and sulfides from aprotic electrolytes" JOURNAL OF THE ELECTROCHEMICAL SOCIETY, vol. 140, no. 1, 1993, pages 140-144, XP000548047 ISSN: 0013-4651 the whole document	1-72

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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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